

Arremon, I.

August 25, 1958

Cerro Campana and BCI

~~Arremon~~ = aurantirostris = Orange-billed Sparrow

I caught 2 of these finches here, probably a mated pair. Banded right red and right yellow, and let loose in outside cage on the island. Very shy.

Their WF's and TF's (with Inn) seem to be quite the same as those of the Green-backed Sparrow.

The only sounds I have heard them utter are very sharp loud CN's. Single but frequently repeated. Might be transcribed as "Tut" or "Tut" or "Tut". Apparently all CN's.

Arremon, I.

October 25, 1958

Primer Zoo

~~Arremon~~ = schlegelii = Schlegel's Finch

There is a single bird here (♂?) in a large cage with many (mostly smaller) other finches.

General proportions & movements much like those of the Orange-bill, but the bird is smaller & much more lightly built.

Has a "Tut" CN quite like that of the Orange-bill. Always essentially single, but frequently repeated.

Has also uttered quite a lot of what appears to be "song". A series of notes essentially like CN's, followed by a slight flourish (and frequently a partial repetition). The initial series of notes is not very long. 5 is the usual number, I think. Each of these initial notes might be transcribed as "Tut" or "Tut". The flourish is

Arumou, I, 20, 1959, II.

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might be transcribed as "Isceeee" or "Isuh-eeeeeee". The whole thing might be represented by the following diagrams:

----- or -----

With repetition:

(Hearing more of these songs now, I think that the initial series of notes usually includes 6 rather than 5 notes. In any case, there is considerable variation.)

Now this bird has uttered a lot of phrases with a single note like the initial notes following the flourish.

The bill opens & closes with each note

Arumou, I

July 20, 1959
Porto Bello

I disturbed an Orange-bill here today. In very thick underbrush of (probably) second-growth rain-forest, on the banks of a small stream. The bird flew up, landed on a small branch stretching across the stream. Uttered a lot of ACN's like those described above. All single. Each CN accompanied by a single WF and a single TF. Occasionally interspersed by brief phrases of what appeared to be "warbling" song. I couldn't hear these song phrases very well — as they were quite soft and there was a lot of background noise — but they were somehow reminiscent of the songs of the Chestnut-capped Atlapetes in tonal quality. One phrase which I heard a little better than the others may have been composed of five soft "Dee" Notes, one right after the other. These song phrases

Anemon, July 20, 1959, I.

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were not accompanied by any obviously ritualized postures or movements, but each note was accompanied by opening & closing of the bill. It is my impression that the bird seldom or never performed much in the way of WF's or TF's during the utterance of these song phrases.

After a minute or so of intermingled AlCN's and "warbling" songs, the bird just flew away and did not return while I remained.

Anemon, I

April 5, 1960

Barro Colorado

I have had another pair of Orange-bills for some time now. I bought them in the market at the same time, and presume they are a mated ♂ and ♀ (one of them has a brighter bill than the other). Unbanded. This afternoon I finally got around to letting this new pair into a large outside cage adjoining the cage of the old pair. (I shall call the new pair "N", and the old pair "O".)

As would be expected, the N birds seemed alarmed when they were first put into their new cage, and one of the O birds (presumably the ♂) appeared to be considerably irritated by the sudden appearance of the newcomers.

One bird of the N pair (presumably the ♀) stayed on or near the ground, on the side of the cage farthest away from the O birds, throughout the whole period I watched the birds. Remained quite silent throughout.

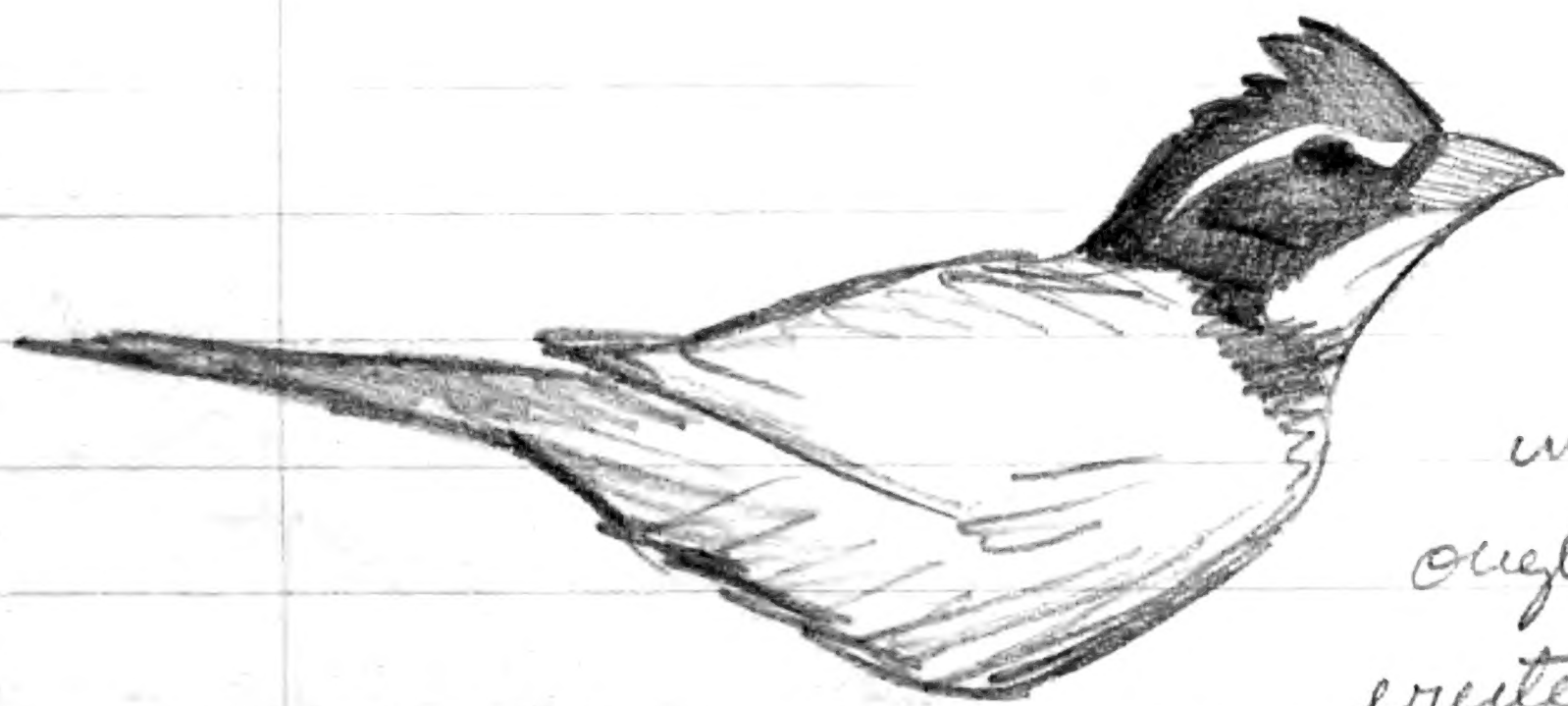
One bird of the O pair (presumably the ♀ also) also remained quite silent, and tended to remain rather low in the shrubbery, (although she did fly up and around from time to time).

These reactions would suggest that ♀'s are much less aggressive than ♂'s (see below).

The tendency to remain low is probably a good indication of a relatively strong escape drive. Frightened birds of this species tend to go down into low vegetation and run along the ground more than any other species with which I am familiar. (I noticed this during very casual observations of both the O & N pairs long ago. This afternoon, when we started to catch the N birds in the aviary where they had been living for months — the "holding aviary" — they tried to escape by flying at first but they went down and started to run long before any of the other birds in the aviary at the time — even before the Green-backed Sparrows and Rose-breasted Thrush Tanagers.)

It was only the preadult ♂'s who displayed this afternoon after the N pair were put in their new home. (I shall just call these 2 birds "the ♂'s" to avoid confusion from now on.) The interesting thing is that they displayed in quite different ways.

The N ♂ spent most of his time hopping and/or flying from bush to bush on the side of the aviary away from the O birds. During most of this time he showed definite extreme CR.



Notice shape of crest.

Peak in front.

Gray median stripe either very inconspicuous or invisible (although the gray feathers are certainly erected as much as the black ones).

The N ♂ also performed lots of WF's and TF's during the periods he was moving around with CR. I noticed that all or most of his TF's were

Memor, Apr 5, 1960, III.

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slightly D-V, with a very strong lateral component (and usually or always J-mv)



The N♂ remained quite silent throughout this whole performance. The fact that he did not utter CN's, in spite of the fact that his escape drive was obviously relatively stronger than that of the O♂ who did utter many CN's (see below), would indicate that the CN's of this species are definitely not alarm patterns (my previous designation of these notes as "alCN's" is obviously wrong).

The N♂ did perform gaping from time to time. Much of his gaping during the first few minutes after the N pair were introduced into their new cage may have been "gawking" (as we had to chase them a long time in their old cage before catching them), but I noticed that he did tend to open his bill slightly from time to time, much later, when the O♂ gave a particularly loud and/or rapid burst of song phrases (see below). This would suggest that the species does have some sort of ritualized G-pattern, but that it is not particularly aggressive. The N♂ always had CR when he G'd, but he also did CR many times without G.

His CR was definitely correlated with the CN's and songs of the O♂. When the O♂ was silent, the N♂ usually gradually lowered the crown feathers, until the crown was quite flat; but he always raised them again as soon as the O♂ became vocal again.

The behavior of the O♂ was much more elaborate than that of the N♂. The O♂ was obviously quite aggressive. He spent most of his time flying and hopping about on the side of his cage nearest to the N birds.

He uttered lots and lots of CN's during this performance. Even

Quercus, April 1962, II.

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th as described before. He didn't utter them constantly, as every now and then he would relax temporarily, sitting more or less placidly and falling silently, but he always uttered CN's when he was moving about excitedly as near to the N's as he could get. Another indication that the attack drive must be appreciably strong when CN's are uttered. The bill is opened and shut quite conspicuously when CN's are uttered.

The O's CN's were intermingled with many song phrases. These songs were much like the ones described above on July 20, 1959, p. 2, insofar as they were very reminiscent of Atlapetes, but today I noticed that they could be divided into two types which were partly distinct from one another.

One type might be called the "Trill song" ("Trill S"). It seemed to consist of a very rapid repetition of essentially identical notes
mmmmmm

The other type might be called the "Twittering song". It was somewhat more melodious than the Trill S (I shall abbreviate it as "Mel S"), but by no means really pretty. It might best be described as a rapid twittering warble. Quite formless in general effect. Many or all Mel S's, however, seemed to be largely or completely based upon repeated doublets or (more frequently) triplets. "tuh toooo" or "tuh tuh toooo" (Probably, in some cases, the "tooos" were preceded by more than 2 "tuh"s, but I am not sure about this.)

Both types of song were essentially similar in tonal quality. Relatively soft and "tunny".

The only notes of the songs which were even moderately loud were some of the "tooos".

Many of the song phrases uttered by the O's were really combinations of the Trill and Mel types, including both trills and doublets.

Anemon, Apr. 5, 1960, V.

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et and/or triplet "tuh tooo"s.

A fairly typical example of one of these intermediate song phrases, preceded by CN's (and all the song phrases were), might be represented as follows:

— — — — —
CN CN CN Mel S Ill

(This sort of arrangement did not appear to be very standardized. I am fairly certain that Ill's occurred before the Mel part during some song phrases, and that either the Ill and/or the Mel parts were sometimes repeated at least once.)

It is quite possible that the triplets which appear to be the basis of the Mel S's and the Mel parts of combined Ill-Mel S's are strictly homologous with the NNN's of the songs of Chlorospingus spp. (If necessary, I shall use the same abbreviation for them.)

It might be worth stressing that the single notes which are repeated in the Ill are much softer than the CN's — although they may conceivably be essentially identical with the "tuh"s of the NNN's. These notes of the Ill are quite reminiscent of the softest CN's of a variety of other species, but they are very different from the CN's of this species.)

The bill was definitely opened & closed with each note of many or all songs (I am sure with each note of the Mel S's, but still uncertain about the Ill S's). It was not, however, opened widely with most notes. It was only opened widely with the loudest "tooos" of some NNN's.

It was difficult to tell if the O O was performing CR at any time this afternoon. He seems to have managed to get most of his crown feathers rubbed off in some way. But he did have a few little stubs stuck

ing up all or almost all the times he was uttering CN's and songs, and so he may have had CR all these times.

He certainly performed lots of WF's and TF's almost all the times he was uttering CN's & songs. I did not notice any decrease of flapping when he was singing.

When the N pair were first put into their new cage, the O♂ flew toward them immediately. He uttered CN's immediately, but did not begin to sing until a few seconds (minutes?) later. His first 4 or 7 song phrases were largely or completely Ill S's. Then he started to utter song phrases which were largely or completely Mel S's. He continued to give songs off and on for at least an hour. In bursts. Six or seven songs within a minute or so, as he flew excitedly as near to the N's as he could get, and then a few minutes of sitting quietly. Most of these later songs were also largely or completely Mel S's.

The only songs uttered by the O♂ during later periods which were largely or completely Ill S's were correlated with redirection attacks. Sometimes when the O♂ was hopping or flying about near the N's with lots of CN's & Mel S's, the O♀ would come more or less close to the O♂. He was then very likely to turn around and supplant the ♀ very rapidly several times in succession. Obviously supplanting attacks. Most of these attacks were accompanied by lots of CN's and song phrases, and many song phrases in such circumstances were largely or completely Ill S's.

These incidents would suggest that Ill S's are either more aggressive and/or higher intensity than Mel S's.

Both types of song were definitely correlated with CN's. There were no songs which were not associated with CN's. CN's usually occurred both before and after every song phrase. But CN's also

Arremon, Apr. 5, 1960, VII.

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occurred not infrequently by themselves alone, without song phrases. This would suggest that the CR's may be lower intensity than the song phrases.

All in all, the whole of the display behavior shown by these birds today was very reminiscent of Atlapetes. Quite different from the display behavior of Arremonops.

Arremon, I

May 4, 1961

Barro Colorado

I separated the ♂'s & ♀'s of both the N and O pairs some time ago (at least 3 months ago). I took the 2 birds which I thought were ♂'s and put them together in the same cage, leaving the 2 birds which I thought were ♀ in their old cages (separate). Then yesterday I put the N ♂ (banded red) in the cage with the O ♀ (unbanded). (Unfortunately, the O ♂ died a few weeks after being separated from the ♀.)

The N ♂ had been singing, in the early mornings, while it was by itself. High thin "formless" warbles, which I did not have time to study. But I rather imagined that it must be coming into breeding condition. I hoped to see some interesting reactions when I put it in with the ♀.

This hope was not really fulfilled.

When the ♂ was first introduced, both birds uttered a few "Tut" CR's and hopped about the cage moderately rapidly. The O ♀ also did a little silent CR. Then both birds appeared to calm down, but kept well apart from one another.

After being together for a few minutes, one or both birds ut-

Amur, May 4, 1961, II

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ered a few single "Isawee" Notes. Plaintive in tone. These notes reminded me very much of the SN's of Gangara and Kiroupi, and the PCN's of the Savane de Toro. I imagine they were homologous with all these latter. As far as I could tell, they were not accompanied by any special ritualized postures or movements (or any opening & closing of the bill).

I think I shall call these plaintive "Isawee" Notes of the Orange-bell "SN" also.

A few minutes later, the N♂ began to utter song phrases. Obviously the type I called "Mel S" before. Each phrase might be transcribed by something like "Trit ta-sa-weee". (The first note of each phrase was probably nothing more than an ordinary CN.) Uttered from a perfectly unritualized-looking perching or pre-territory posture. I couldn't tell if the bill opened and closed with the notes or not. The N♂ continued to utter these Mel S phrases, at regular intervals, but they didn't seem to provoke any sort of response from either the O♀ or the N♀ (in the adjacent cage.)

After a few more minutes, the O♀ began to fly about a little more actively than she had before, and occasionally came quite close to the ♂. At such times he uttered song phrases which were slightly different from the ones he uttered a few minutes earlier. More or less comme ça:

"Trit ta-ta-sa-weee." or "Ta-ta-ta-ta-ta-sa-weee".
The "ta-ta-ta-ta" component appeared to be a form of R (presumably the same thing that I called "Till" before). As far as I could tell, these Mel S's + R component were not accompanied by any special ritualized postures or movements. Nor did they provoke any more response than the previous Mel S's alone from the O♀. Still, I think that they must have been (more strongly) hostile (than the ordinary Mel S's without R).

Alumna, May 4, 1961, III

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Both types of song phrases tended to be uttered in doublets, 2 phrases, one right after the other followed by a pause, and then 2 phrases more, etc. etc. But there were some exceptions, i.e. single phrases.

I wonder the response of the bird to "ta-swee"s or "ta-na-swee"s if these songs were less related to, or closely related to, the single SW's. If so, the "ta-na-swee"s are very closely comparable to the WS's of Palm and Blue Tanagers.

This morning, I went down to watch the birds slightly before dawn.

The NBT began to utter song phrases well before it was completely light. These phrases were similar to the Mel S's he uttered yesterday, but even more twittering and formless. (I think that these formless, twittering, Mel S's were the same as the ones he used to utter in the mornings when he was in a cage by himself.) Some or all of these songs this morning might be transcribed by something like "Tuh-tuh-tuh ta-swee tuh tuh-tuh ta-swee" Rapid and "tinkling". Usually in doublets.



? Bill
open?

Pre-locomotory Posture
accompanying early morning
Mel S's

The N♂ was not close to the O♀ when he uttered these songs (usually, in fact, he was right at the opposite end of the cage). The O♀ made no response either. I.E. these songs are certainly not "court" songs.

It was difficult to see the N♂ clearly while he uttered these songs (due to the half light), but I was able to see that he was usually or always fairly high in the shrubbery in the cage. Either perched in an ordinary sitting posture or, more frequently (perhaps always?), in a "pre-Coccyzian" posture such as the one shown on the preceding page. He tended to fly from perch to perch, or hop along a perch, between bursts of song.

The ♂ stopped these songs by the time it was fully light.

About 6:45, I took him out of the O♀'s cage, and put him in the cage with the N♀, next door. But then none of the birds did anything at all!

The variability of the songs of this species is probably a good indication of relationship to *Citreoline* & *Pelliploides*. So is the incorporation of R components in the song.

Arremon, I.

June 6, 1961
Barro Colorado

I left the birds as they were after the incidents described above. Then, on June 4, Rivera found that the O♀, all by herself, had managed to build a nest and lay 2 eggs !!! I immediately collected the eggs.

Put the old ♀ in with the N pair this afternoon 4:10 p.m.
Her reaction at first. O♀ hops along ground. N birds just sit on perches, watching her, performing occasional flicking movements.

Ammon, June 26, 1961 II

✓ Ciliated Sparrows!

Birds busily hopping around on ground, jumping in
frequent flight for an occasional single, short note (CN)
Note. Is this an SN pattern? It is like the CN- but
are accompanied by special movements.

June - hopping about on ground, notes and movements
6:20 Birds not working.

One of the birds is now hopping and uttering CN- but also
CN- with the The notes of the CN- are much softer than the CN-
They sound rather as if they might be low intensity, weak or faint notes.
This bird was hopping near the others while it uttered CN- notes. But it
did not seem to be reacting to them in any other way.

Apparently nothing at all going on now, 6:45
Uttering nothing but occasional CN's.

Then one of the birds utters a couple more "Whinn" notes. It seems
to be uttering these notes as it hopped along the ground, when I got near another
bird (also hopping along the ground). I noticed that these notes were really
quite hoarse and rather nasal!! Perhaps these notes are HAC or GHAC?

Leaving myself 7:00 a.m.

✓ (From my observations today, I think that the green banded Cuckoo
is probably the NO?)

Ammon, I

July 2, 1961
Barro Colorado

✓ Boca says that he found 1 egg in the nest of three captive Orange
ge-bills early yesterday morning, and then a second later in the morning.

Alouatta Sully 2, 1961, II

(5)

Arrive at cage to watch birds 5:33 a.m. Two hummingbirds out.

5:35 AM. 1st bird at Alouatta. Hal S. Too dark to see birds. Then more CN. Still too dark to see note.

5:40 AM.

1st bird again at Alouatta. Hal S. "whoooo" or

to Alouatta to Alouatta to Alouatta to Alouatta

Continuing Hal S. Hal S. to 6:00 still too dark to see

6:00 to 6:15 AM. Hal S. to 6:15 AM. Hal S. and all as most CN's after Alouatta bird. Hal S. somewhat unusual. In ground as well as when perched. Uttered from all parts of cage and perched on top of cage. Alternated with lots of WT's and TF's. TF's with tail fanned. No CR. Yellow-capped warbler during song.

6:15 AM. Bird sits near Alouatta, uttering Hal S. after Hal S. Alternated with comfort activities. At the same time, I hear an occasional "Whoo" note in background. These are definitely not uttered by the singing bird. Probably by another bird flying around cage quite excitedly.

See or no. Hal S. CN's now to 20

Birds start lots of "Tut"s, stop all other calls, when Bora goes in to get feed. I presume "Tut"s must be Alouatta's!

All completely silent after Bora leaves. Still about 6:35

Then bird starts to utter Hal S's again. This is the green-banded bird. Hal S's alternated with WT's & TF's. Bird alone. Then flies down to feed on ground near other bird. Stops Hal S's.

Hal S's definitely do not seem to be hostile!

Now bird back, uttering Hal S's while perched. Hal S's alternated with both flicking and comfort activities 6:45.

Armon, July 2, 1961, II

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Bill definitely opens & closes with each note of bird's purpose.

During almost the whole of this morning, one of the birds was incubating steadily. This is the unbanded bird (the one I called "O" before). The green-banded bird is presumably mated to the incubator bird. The green-banded bird is presumably "N" ♂. The third bird, still banded red, is presumably "N" ♀. She has spent most of the morning flying around the cage quite actively and nervously. She seems to be much more nervous than the green-banded bird.

Armon, I

February 10, 1962
San Francisco

The captive birds managed to hatch a pair of young last year (see above), but the young were taken by a snake. I did not watch the behavior of the captive birds again.

Looking over my notes of last year (after having written the first 3 of my descriptive papers on tanagers and finches), I think that I should give new names to some of the displays of the species and add some comments about some of the displays.

I shall call "Mbl S" "Wbl" from now on.

I shall call "Mll S" just plain "Mll" from now on.

I shall call "SN"s (whatever they may be in this species)

"PN"s from now on.

The notes I have been calling "AlCN's" or "CN's" are obviously short hostile notes. I shall call them "SHN's" from now on.

(Cont'd next page)

Arenson, Feb. 10, 1962, III

(18)

These Tll's were accompanied by quite a lot of chasing back and forth. Obviously hostile. I couldn't see if they were accompanied by special ritualized postures or movements. (Probably, I never saw a bird clearly at the exact instant it was uttering Tll's. But the Tll's were certainly being uttered by these particular birds.)

These SHN-Tll sequences were quite numerous of the Orange-tanagers in record. Especially "Tuck" Note ER sequences by BC BT's.

7:15 a.m. Flushed another pair of Orange-bills. Both hops about in bushes. Uttering lots of single SHN's. One bird also utters several Tll's. Quite as described above, but shorter. No chasing.

7:30 a.m. Flushed still another Orange-bill. Apparently single. Utters lots of SHN's. With slight CR at first; but the CR disappears as the bird comes closer to me and/or as the intensity of its reaction declines. Also with occasional WF's (sometimes extreme, sometimes not), and many extreme TF's. These TF's were primarily lateral, and D-V, like the TF's of my captive birds. The tail was also jerked straight down, a little bit, with each note.

7:40 a.m. Flushed another single Orange-bill. Hopped about uttering SHN's as usual. With extreme WF's and TF's. Also very slight CR and definite Thflff. Thflff quite conspicuous, although the feathers of the throat of this species are not as long as those of Atlapetes spp.

8:15 a.m. Flushed another single Orange-bill. Uttered SHN's with Thflff, WF's, and TF's. No CR.

Quercus Feb 8, 1962 II

(17)



Shiff without CR
In erect posture

8:30 a.m. Flush another single bird. This bird is not great
ly upset. It's quite relaxed, with head drawn in, resting on shoulders.
Utters SHN's, without CR, Shiff or Flushing movements. These
SHN's obviously produced by very weak motivation. So the range of
motivation producing SHN's in this species is probably very great.

I think all the TF's I saw this morning were accompanied
by more or less pronounced Fm

Quercus, I

February 11, 1962
Santa Fe.

I went up to the area where the Orange bells are again
early this morning. Arrived 6:35. Already light, but sun not
up over the mountains yet. Cloudy.

There was no trace of Dawn Calling in the area. All I hear
d were a few SHN's and (probably) some Wbl's in the distance.

Ammon, I

June 24, 1952
Barro Colorado

8:00 a.m. Saw near a pair of Orange-bills in same area where I have watched Mitras on previous days. In same forest undergrowth. Both birds shrewdly aware of me. One utter lots of SAN's and a few WBL's. Without CR. At the time it uttered its WBL's it was at least several feet away from its mate.

Both the SAN's and WBL's of this species are very reminiscent of the corresponding patterns of the Mitras in sound. This may be an indication of relationship. More probably, due to convergency, correlated with the fact that the 2 species live in similar environments. (The WBL's of the 2 species may not be strictly homologous — or, at least, may be produced by different motivation)

Ammon, I

May 6, 1952
Barro Colorado

Watching my capture pair 5:50 a.m. Not working from cloud. One bird becomes vocal 5:54. At first it's a rumble series of SAN's and WBL's. WBL's very soft. Then just utter series of WBL's. WBL's gradually becoming somewhat louder. 6:02 Bird falls silent. Still difficult to see properly. Just WBL phrases quite long & complex. Bird resumes WBL's, as before, 6:04 a.m. One phrase like "Tee-ta-zee ta-zee-wee"

Memor., May 6, 1955, II

(21)

1 Birds fall silent when Alvarez approaches.

Some "Ja-ta-zee-wuh" some "Ja-ta-zee-wuh" All "tinkling" but not too soft.

6:15 - 6:20 a.m.

to birds to "primitive" "Whew" note, followed by more WBL's.

6:20 - 6:25 a.m. PN, I think.

All or most of the vocal patterns seem to be uttered by bird in vegetation. Heard from me.

These WBL's - 3 or 4. As before, but not composed of quite as regular doublets.

Then lots more WBL's. All these WBL's apparent to be uttered by bird while perched, very momentarily, between flights. Bird usually moving around cage very rapidly. (This species doesn't seem to sit perched on a "station" for long periods of time while "singing".)

Another case of a WBL introduced by a PN. 6:20. Again! Then lots more WBL's without PN introduction.

This time I get a good view of the singing bird. It sometimes perches for several seconds, uttering several WBL's in a row, before flying off. WBL's uttered from perfectly unritualized looking posture. Not very upright. Without any trace of either CR or Hfluff. Bill opens and closes with the notes.

One WBL "Ja-ta-zee-wuh ta-ta-zee-wuh"

This division of a "single" WBL (or single WBL phrase) into two essentially identical phrases or sub-phrases seems to be quite a common

Memor, May 6 1962, II

(2)

on an average. But not invariable. Some Wbl's consist of single phrases or sub-phrases. Others are long, but not divided into major sub-phrases.

One more Wbl introduced by SN 6:28. Then - let more without SN's. Many of these phrases uttered by bird on ground, in intervals of feeding. Again from perfectly ritualized postures. No CR or Thflf.

6:35 Bird now sitting very quietly and peacefully on perch for long period of time (over a minute), uttering Wbl after Wbl, at more or less regular (and relatively long) intervals. Phases of the Wbl's bipartite. Vary from "Za-weeee za-weeee za-weeee" to "Za-weeee za-weeee za-weeee-uh-wee". Again no CR or Thflf. Bird's looks from side to side occasionally between Wbl's.

Silent now, 6:40 a.m.

A few more Wbl's a few minutes later.

I am fairly certain that it is the green-banded bird who is doing all the singing. This is the bird with the brighter bill. Brown 57.

Again another Wbl introduced by PN, followed by a series of Wbl's without PN. So it seems that there is a tendency for PN's to be uttered at the beginning of a period of Wbl's, but not later in the period. PN may be an introductory "warm up" pattern. Produced by the same type of motivation as Wbl's, at a lower intensity ???

7:53 Green suddenly utters series of vocal patterns
1 SHN - 1 PN - 1 Wbl 1 SHN - 1 Wbl 1 SHN - 1 PN - 1 Wbl 1 SHN - 1 Wbl
1 SHN - 1 Wbl 1 SHN - 1 Wbl 1 SHN - 1 Wbl Wbl Wbl Wbl
Wbl I don't know why this sudden outburst SHN's. Bird sitting on perch in ritualized posture throughout.

Anemon, May 6, 1962, IV

(2)



One anemon 24 ft
poitite

looks large bodied
from fluffy underparts

Yellow-carp almost hidden

There has certainly been nothing like a pre-cop attempt this morning. No conspicuous approaches of the ♂ to the ♀. The ♀ has been hidden from my sight most of the time.

Leaving 17:07

I checked the cage after leaving. No trace of a nest yet

Anemon I

April 1, 1963
Tarma, Peru

This morning saw several individuals of what was presumably an other species of Anemon. No ~~III~~ on list = ~~anemon~~ =

About 6:30 a.m. saw a pair in Eucalyptus trees. Altitude 10,475 feet. Birds moving about in trees, approximately 10-20 ft above ground. One bird sings repeatedly while some distance from mate. Phrases "Isi-whit-tsee-whceee (or)"

Anemou, Apr 1, 1963, II

(34)

The bird had definite CR during at least some of these phrases! (but probably not all?).

A few minutes later, one or both birds uttered some sort of "greeting" (GHAC?) when one joined the other.

April 2, 1963

Below Jaruma

Have seen several more of the local Orange-bills this afternoon. 3:35 p.m. 9000 ft. See 2 single Orange-bills (perhaps just separated members of single pair). Moving through low scrub and in nearby Eucalypts, 20 feet above ground. One of the birds repeatedly utters loud, clear, whistling calls "Whit-whoooo"s and/or "Whoooo"s at irregular intervals. While in scrub.

One of these birds was seen to have a dusky crown bill. Juvenile or just dirty? Unfortunately, I don't know if this was the bird that uttered the notes or not.

I heard similar notes coming from low scrub in area above Jaruma this morning, in the middle of the morning. Couldn't see bird; but this was the area where Orange-bills were seen yesterday.

These notes may be nothing more than low-intensity song.

Later in the afternoon, ca. 5:30, I saw one Orange-bill moving through low scrub at 8540 ft. Apparently silent.

Ammon, I

April 3, 1963
Near Panama

Working above Panama this morning. From 10,700 to 11,375 feet. Saw quite a lot of local "Orange-bills" around, up to approximately 11,000 ft. In both low scrub and in Eucalypts. Usually single. Perhaps some of the birds seen were actually in pairs or family groups of three, but, if so, the members of the pair or group were always quite widely scattered.

I am beginning to think that this species may be a saltator. About exactly intermediate, in body shape, between typical saltators and typical Ammon & Ammonops-type sparrows in Panama. And bill is quite thick and heavy.

7:10 a.m. Ca. 10,800 ft. Some bird(s), probably "Orange-bills", heard in trees near second pair of Bruns (see today's notes on *Mixed Diglossini*). And utter repeated "Ja-wheweeet-wheweeet" phrases. Loud & whistled. Unfortunately, I didn't see the bird(s) well, but the general tone of the calls was identical with that of (other) Orange-bill calls I have heard.

8:15 a.m. See a single Orange-bill perched on top of bush about 3 feet above ground. Utters series of "Ja-wheweeet-wheweeet" calls. Less loud and whistling than most calls of the species. Sitting in unritualized posture. No CR. Head & bill pointed diagonally upward as each call is uttered. Then bird flies away. Left to right. But I hear loud, clear, and whistled "Ja-wheweeet-wheweeet"s in distance, a few seconds later, coming from direction in which bird flew. Also a few single "Wheweeet"s. All this happened at 10,925 ft.

Ammon, Apr 3, 1963, II.

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It seems likely that this species has quite a variety of slightly different "song" patterns. And all of them are quite Saltator-like (especially like Black-cap.)

Ammon, I

April 6, 1963
Mr. Ammon

Working below Piles tier up from 2000 ft. at foot of mountain where I have been studying. Not very far from where there are lots of the local Orange-bill. Crop fields and hedge-like stretches of scrub. Relatively few trees.

It is raining hard this afternoon.

4:15. A single Orange-bill perches on branch about 10-15 feet above the ground, utters "Tee-who-who" notes at intervals.

5:45. Rain stopped. See another single "Orange-bill" perched on top of bush, or pond, 10 ft above ground. Utters "Whit-cha-who-who-who-who" notes.

Sometimes single, sometimes double. Quite vertical, angled posture. Perches between vocal patterns. Once utters "Whit-cha-who-who-who-who" then flies off. Then perches on stalk of maize in field. Apparently utters repeated "Chit-chit chit-ta-wa" notes. Then flies down out of sight. (Even this last call is quite Saltator-like.)

Armon, I

April 7, 1963
Mr. Tamm

Walking same place as yesterday afternoon. Arrive well before it is light. Many bird "songs" heard before 6:00 a.m. Still quite dark as it is raining hard again. Bird sounds are not DC (I have heard also but nothing like DC today). 4-syllable whistles, more or less like yesterday afternoon "Whit-cha-ta-whereeee". Growing slightly abbreviated, to 3 and 2 syllables by 6:15. "Whit-chawhereeee".

6:20 a.m. See Orange-bell hopping through maize field. Utters occasional "Whit-chee-ta-ta-ua"s. Then flies into brush. Utters "Whit-chee", followed immediately by long "chatter", i.e. "ta-ta-ta-ta.....". Then flies away, immediately another Orange-bell, in brush about 10 ft away from where the first bird had chattered, utters regular 2-syllable "song" whistles.

Chatter is presumably hostile and/or greeting.

Then see the 2 birds moving about together in same maize field. One utters long Chatter as they both land, simultaneously, on stalks about 5-10 ft apart. Then same bird hops from stalk to stalk, generally moving away from its "partner", and begins to utter typical 4-syllable song whistles. Then both birds fly into nearby hedge. Once both utter(s) chatter as they land. Then one hops up to exposed perch and begins to utter song whistles as before 6:28. Then flies away.

Rain gradually stopping 7:00 a.m.

One thing I have noticed about the local Orange-bells. Although they often occur in very low scrub (as well as trees and maize fields), they apparently never come down to the ground itself.

Мемор., Apr. 7, 1963, II.

7:00 a.m. Most of the song whistles heard now are 2 or 3 syllable
 les. "Cha-whereeeeee", "Whit-cha-whereeeeee" Only a few full 4 syllable
 performances. Occasional monosyllabic whistles

All these song whistles seem to be uttered by birds that are essentially "alone" (although they often have presumed mates 50 yards or more away).

These birds utter song whistles quite frequently. And their songs are certainly louder than those of any other local species.

But they certainly do not attract individuals of other species! I have seen no trace of any association of any sort between these birds and any other species.

I am fairly certain that mates answer one another by whistling back and forth across fields when separated. At least some birds certainly do - whether they are mates or rival males.

None of the birds I have seen singing today has had any trace of CR

One bird is uttering alternate "Mut-cheeeee"s and "Mut-cheeeee-seeeee"s.

alternation very regularly, but at moderate
long intervals.

For the last half hour or so, ever since 7:00 a.m., approximately I have been hearing a lot of "chew-chewee chew-chewee chew-chewee chew-chewee" calls by 4 or 5 birds around here. Very difficult to see who is uttering them. At first I thought it might be the "Gray and Yellow" Finch. But now I think it is the Orange-bills. These notes are much softer and less whistle-like than the usual song whistles of the species. Very reminiscent of the DC of other species in total.

Memor, Apr. 7, 1943, III.

(29)

quality. Also apparently indeterminate in length.

If these notes are uttered by Orange-bills, they are obviously related to both the ordinary song whistles of the species and the DC of other species. I would be considered DC patterns in process of becoming assimilated into the "day song" patterns.

If these notes are being uttered by Orange-bills, it is reasonable that they are uttered by birds when they are fairly well hidden in shrubbery — not on exposed perches as when ordinary song whistles are uttered.

I think these notes are uttered by Orange-bills because I have seen Orange-bills fly out from shrubbery, from which the notes had been coming, and the notes stopped after the Orange-bills left. Also I have heard typical song whistles uttered in midst of a series of the softer notes — all apparently uttered by same bird(s).

One Orange-bill utters rather metallic "Tut" notes in flight. Then brief chatter — when landing by itself, at least 50 ft from another bird that may be its mate.

I have heard similar semi-metallic "Tut" notes uttered by other Orange-bills in flight. But they are not very common. Still they may be considered an index of Richmondian relationships.

7:42. One Orange-bill supplants another on perch. This supplanting accompanied by brief chatter.

Memor, I

April 13, 1943
Mr. Ayco

"Orange-bills" have been common around here in almost all the

Anemon, Apr. 13, 1963, I

(30)

4 areas I have visited, below the Puna cliff.

4 I observed some interesting behavior of "Orange-bills" this morning, below Hrubanaka. SEE TODAY'S NOTES ON MIXED DIGLOSSINI.

4 Then, 8:30 a.m., see two "Orange-bills" in Eucalypt. At least 20 ft above ground. Hopping about excitedly. One of the birds utters a lot of trill chatter. Then continue hopping about silently. Then one feeds the other. No pre or post display.

Anemon, I

April 24, 1963
Barro Colorado

Yesterday I heard that one of my captive Orange-bills was singing very frequently. Wbl's. Later, I found the beginnings of a nest in the bottom of the Orange-bill cage.

Watching birds this morning 6:00 a.m. Still dark-ish. Observational conditions very bad.

One bird utters a few SHN's. No trace of song of any kind.

Then there is some aerial chasing back & forth. Then one bird perches alone. Utters Wbl's.

Then both birds fly back & forth. Only occasional Wbl's always by bird while separated from mate. Occasional single "PN"s.

Wbl's uttered from usual pre-locomotor postures.

♂ also runs on ground while feeding 6:25.

♀ seems to be ignoring him, or even avoiding him.

The "PN"s uttered today are rather nasal & hoarse "seccet"s or "Wheewt"s. Usually, I think, uttered when birds are hopping about on